NDL-PCBs in camel milk from Kazakhstan

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INTRODUCTION

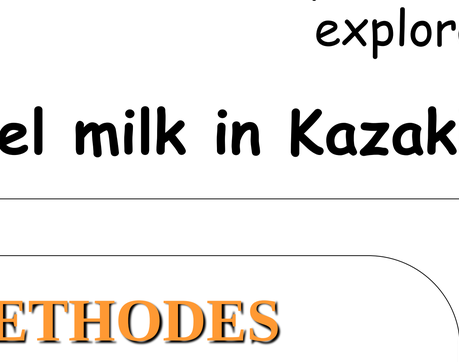
Environmental context in Kazakhstan is characterized by polluting industries and intensive way to grow crops what let expect exposure of outside reared animal to pollutants as PCBs. In the same time, camel breeding is traditionally present and herds explore widespread zones, expose them to deposited compounds. Camel milk products are largely consumed by the inhabitants what would rise Food safety questions. As few is known about such pollutants in the products of these species we propose an exploratory work :

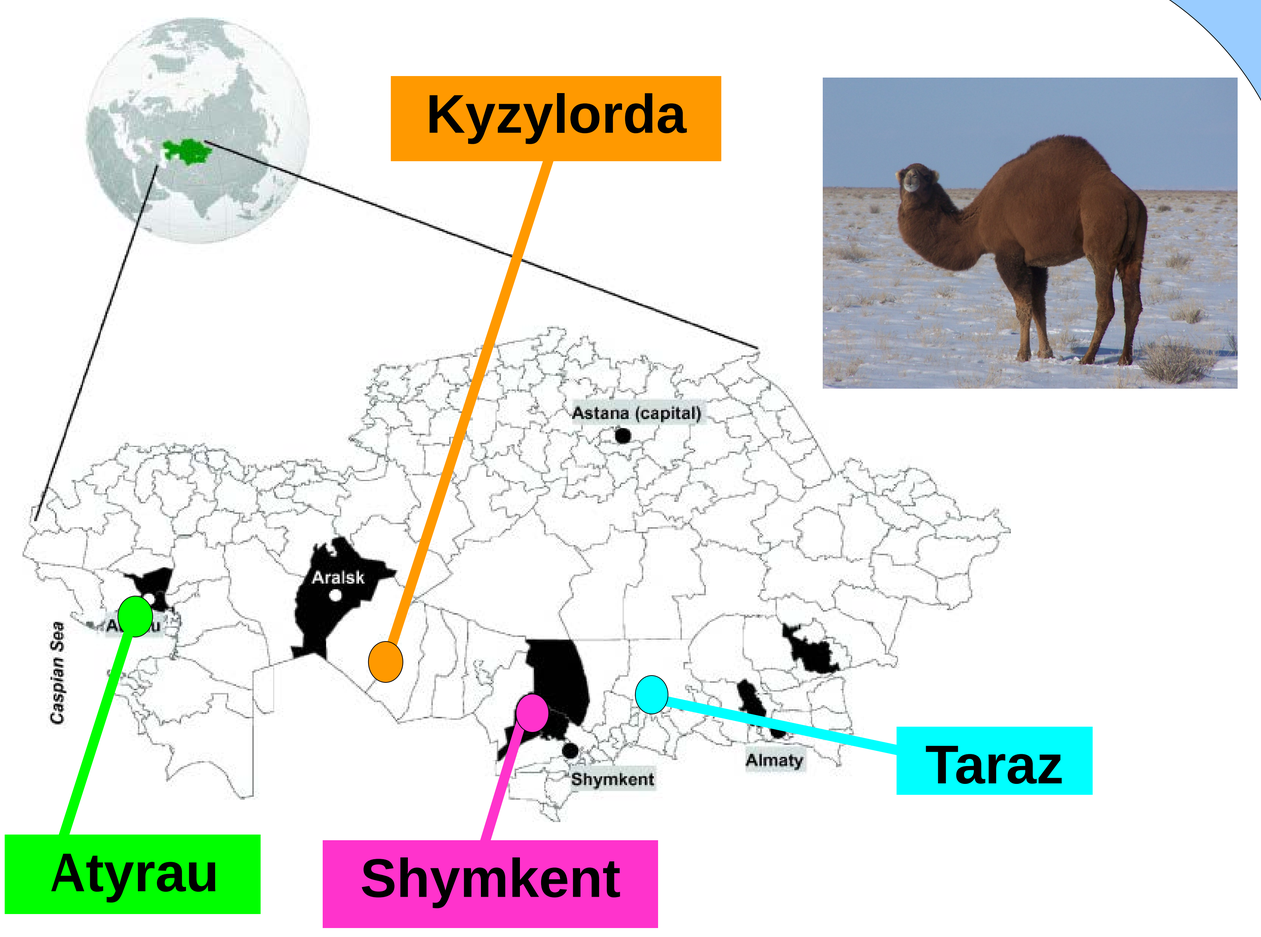
In what extent camel milk in Kazakhstan is contaminated with NDL-PCBs ?

MATERIELS & METHODES

Sampling of camel milk in 24 farms distributed in four regions :

Analysis:
Samples pooled on a regional level
Extraction of NDL-PCBs (NF EN 1528-2 (1997) and GC analysis with electron capture detector





RESULTS

No revealed indicator PCBs in the milk of three regions (i.e. < 0,1 ng/g milk): Atyrau, Shymkent & Taraz

Only milk from **Kyzylorda** region showed some traces of PCBs 52 (0,2 ng/g milk) and PCB 138 (0,25 ng/g)

Wide running herds would dilute the exposure of the animals ?

Specific intake behavior of camels would "protect" them partially against intake of main vectors as soil ?

?

Specificities of fat metabolism in camels could enhance a low transfer of PCBs to milk in these species ?

Overestimation of environmental charges in PCBs in Kazakhstan ?

CONCLUSION

Very low concentrations of NDL-PCBs would not represent a danger for the health of the Kazakh consumer of these camel milks

Opposition between environmental context and revealed concentrations arises questions which need to deepened in future work